

SerRS (H-300): sc-98703

BACKGROUND

The fidelity of protein synthesis requires efficient discrimination of amino acid substrates by aminoacyl-tRNA synthetases. Aminoacyl-tRNA synthetases function to catalyze the aminoacylation of tRNAs by their corresponding amino acids, thus linking amino acids with tRNA-contained nucleotide triplets. SerRS (seryl-tRNA synthetase), also known as SERS or SARS, is a 514 amino acid member of the class-II aminoacyl-tRNA synthetase family that catalyzes the tRNA^{Ser}-serine aminoacylation reaction. Localized to the cytoplasm, SerRS exists as a homodimer and contains a core catalytic domain and a tRNA-binding domain. In addition to recognizing and serylating tRNA^{Ser}, SerRS can also recognize and serylate tRNA^{Sec} (tRNA^{selenocysteine}). Via this interaction, SerRS is implicated in selenocysteine (Sec) biosynthesis.

CHROMOSOMAL LOCATION

Genetic locus: SARS (human) mapping to 1p13.3; Sars (mouse) mapping to 3 F3.

SOURCE

SerRS (H-300) is a rabbit polyclonal antibody raised against amino acids 57-355 mapping within an internal region of SerRS of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

SerRS (H-300) is recommended for detection of SerRS of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

SerRS (H-300) is also recommended for detection of SerRS in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SerRS siRNA (h): sc-76480, SerRS siRNA (m): sc-76481, SerRS shRNA Plasmid (h): sc-76480-SH, SerRS shRNA Plasmid (m): sc-76481-SH, SerRS shRNA (h) Lentiviral Particles: sc-76480-V and SerRS shRNA (m) Lentiviral Particles: sc-76481-V.

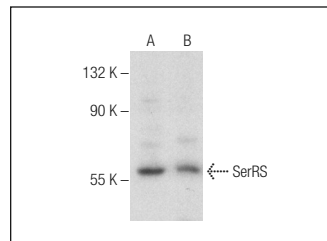
Molecular Weight of SerRS: 59 kDa.

Positive Controls: human liver extract: sc-363766, human brain hippocampus extract: sc-364375 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SerRS (H-300): sc-98703. Western blot analysis of SerRS expression in human liver (A) and human hippocampus (B) tissue extracts.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Try **SerRS (C-2): sc-271032**, our highly recommended monoclonal alternative to SerRS (H-300).